

**Ackerman, Joyce**

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**From:** Jason King <Jason.King@coag.gov>  
**Sent:** Monday, November 20, 2017 2:07 PM  
**To:** Piggott, Amelia; Ackerman, Joyce  
**Cc:** Stovall - CDPHE, Curtis (curtis.stovall@state.co.us); Walker - CDPHE, David (david.walker@state.co.us)  
**Subject:** Neuhauser Work Plan state comments  
**Attachments:** 2017-11-20 Neuhauser LandfillDrumRemovalPlanCommentsCDPHE.docx

Amelia and Joyce,

See attached state comments on the Stratus work plan. Let's discuss during our 3pm call.

**Jason King**  
**Senior Assistant Attorney General**  
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**Natural Resources & Environment Section**  
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David Walker  
Hazardous Waste Corrective Action Unit  
Hazardous Waste Program

## Neuhauser Landfill, Draft Drum Removal Work Plan

### General Comments

1. The Neuhauser Landfill Draft Drum Removal Work Plan (the "Work Plan") primarily addresses management of the known and potential waste drum and chemically contaminated soil at the Neuhauser Landfill (the "Site"). The first paragraph of Section 4 states that an asbestos contractor will be on call as needed to identify asbestos containing materials for remediation. The Division believes there is a potential of exposing or disturbing debris and/or soil that may contain, or may be contaminated with, asbestos during all surface and subsurface soil disturbing activities planned for the Site. This includes: electromagnetic (EM) geophysical surveys, test pitting, mobilization, construction of access roads, work areas and security fencing, drum and soil removal and work area restoration.

If debris and/or soil containing, or contaminated with asbestos is exposed or disturbed during any drum removal related activity it will trigger the requirements of Section 5.5 of the Colorado Regulations Pertaining to Solid Waste Sites and Facilities (Solid Waste Regulations)(6 Code of Colorado Regulations (CCR) 1007-2, Part 1). The requirements of Section 5.5 of the Solid Waste Regulations are significant and may create project delays if appropriate equipment and trained workers are not readily available if needed. Revise the Work Plan to describe how the various project soil disturbing activities will be observed to ensure that debris and/or soil that may contain, or be contaminated with, asbestos is properly identified. Briefly describe how the requirements of Section 5.5 of the Solid Waste Regulations will be complied with if debris and/or soil containing, or contaminated with asbestos is exposed or disturbed.

In practical terms, all soil disturbing activities at the Site should be observed by one or more Qualified Project Monitor(s) (QPMs) and/or Colorado Certified Asbestos Building Inspector(s) (Colorado CABIs) on an ongoing basis to look for suspect asbestos containing or contaminated soil or debris. The QPMs and CABI(s) must have the authority to stop the soil disturbing work if suspect material is identified. If suspect material is found, the contractor may assume

that the material is asbestos and implement the required procedures, or the CABI may sample the material to determine if it is asbestos.

If asbestos is to be disturbed, the contractor conducting the work will notify the Division within 24-hours. To minimize the potential for delays if asbestos is encountered, the contractor performing the work should be prepared to implement the Standard Requirements for the Disturbance of Regulated Asbestos-Contaminated Soil (RACS) of Section 5.5.7 of the Colorado Solid Waste Regulations. Alternately, the contractor may prepare, and submit to the Division for review and approval (before or after the start of the project), a Project Specific Management Plan or Standard Operating Procedures in accordance with Sections 5.5.5(A) and 5.5.5(B) of the Colorado Solid Waste Regulations. Contact Mr. Brian Long at (303) 691-4033 or [briant.long@state.co.us](mailto:briant.long@state.co.us) with questions.

2. Section 2 (page 2) of the Work Plan indicates that there are prairie dogs throughout the site and recent prairie dog holes were observed during the October 30, 2017 site visit. The fate of prairie dogs during soil remediation activities is often a significant concern to the public. Please include a brief discussion of actions that will be taken to humanely address prairie dog issues.
3. Section 4.3 (page 7, first two bullets under Phase II Excavation, Section 4.4.2 (page 10) and Section 2.3.2.2 (page 8) of the Field Sampling Plan discuss the excavation, stockpiling and sampling of soil overlying the drums and soil that appears clean due to lack of visible contamination, lack of odor and low FID readings. Section 2.3.2.2 of the Field Sampling Plan describes procedures for the collection of composite soil samples for waste profile characterization. However, it is not clear whether or not the soil overlying the drums and/or the "clean" appearing soil from around the drums will be disposed off-site or returned to the ground on the Site.

Revise the Work Plan to clearly state what, if any of the overlying soil and clean soil from around the drums will be returned to the ground surface at the Site. Provide the criteria used for deciding that soil may be returned to the Site. If soil from stockpiles is to be returned to the Site, also revise Section 2.3.2.2 of the Field Sampling from the discussion provided in the Work Plan to state that the soil samples for volatile organic compound (VOC) analysis from stockpiled soil will not be composited.

## Specific Comments

4. List of Acronyms (page IV). Correct errors in the List of Acronyms and throughout the document: ARARs:
  - AOC - Administrative and Order on of Consent
  - ARAR - Applicable or Relevant and Appropriate Requirements
  - VOCs - Volatile Organic Hydrocarbons Compounds
5. Section 3.2 (page 3) Delete "may apply." ARARs compliance should be definitive in the work plan.
6. Section 3.2.2 - State ARARs (page 4). Delete existing text and replace with the following:
  - Colorado Discharge Permit System Regulations for storm water (5 CCR 1002-61, pursuant to CRS § 25-8-503)
  - Colorado Hazardous Waste Regulations (6 CCR 1007-3, pursuant to CRS § 25-15-101 et. seq.)
    - Part 261- Identification and Listing of Hazardous Waste
    - Part 262 - Standards Applicable to Generators of Hazardous Waste
    - Part 263 - Standards Applicable to Transporters of Hazardous Waste
    - Part 264 - Standards for Owners and Operators of Treatment, Storage and Disposal Facilities
    - Part 268 - Land Disposal Restrictions
  - Colorado Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2, pursuant to CRS § 30-20-100.5 et. seq.)
    - Section 1 - General Provisions
    - Section 2 - Minimum Standards
    - Section 3 - Standards for Solid Waste Disposal Landfill Sites and Facilities
    - Section 5.5 - Management of Asbestos-Contaminated Soils
  - Colorado Air Pollution Emissions Notice Requirements, Regulation No. 3 (5 CCR 1001-5, pursuant to CRS § 25-7-114.1)
  - Colorado Fugitive Dust Control Plan/Opacity Regulation No.1. (5 CCR 1001-3, pursuant to CRS § 25-7-101 et. seq.)[further analysis pending]
  - Colorado Noise Abatement Statute (CRS § 25-12-101 et. seq.)

- CDPHE *Corrective Action Guidance Appendix 2: Contained Out Determination Procedure For Environmental Media Contaminated With RCRA Hazardous Waste* (to be Considered (“TBC”))

7. Section 4.1 Additional EM Surveying and Test Pitting (page 6). The Work Plan references Figure 4 for the location of EM surveying information. However, Figure 4 is the project organization chart. Revise the Work Plan to reference the correct figure.
8. Section 4.2 Drums and Soil to be Removed (page 7, first bullet). The Work Plan specifies that soil with total volatile organic compound (VOC) concentrations of 100 parts per million by volume (ppmv) or greater will be included in the removal action. However, Sections 4.4.2.1 and 4.4.2.2 (page 11) specify that removal will include soils that are found to be characteristically hazardous. Revise Section 4.2 of the Work Plan to include the requirement that soils found to be characteristically hazardous will also be removed during the removal action.

It is understood that the 100 ppmv screening criteria will be one of the criteria used to make the initial field determination to stop soil excavation during the removal action. Since it may take several weeks to a month for the laboratory to report the results of soil samples that will be used to determine whether soil is a characteristic hazardous waste, the Work Plan text or the Site Management Plan to be included as Attachment E must acknowledge, and plan for, the need to return to excavation sites to conduct additional soil removal during this removal event, or a subsequent removal event.

9. Section 4.3 Scope of Work (page 8, 5<sup>th</sup> bullet). The Work Plan states that decontamination of equipment will occur, but does not provide any details regarding the design of the heavy equipment decontamination pad. The November 17, 2017 Site Layout Map does not include the location of a heavy equipment decontamination pad. Note that the discussion of decontamination in Section 4 of the Field Sampling Plan primarily addresses decontamination of sampling equipment, not heavy equipment. Revise the Work Plan or Field Sampling Plan to provide a brief description of the heavy equipment decontamination pad and identify its proposed location on a figure of the Site.
10. Section 4.4.1.1 Temporary Drum and Soil Staging Areas (page 9). The second paragraph of this subsection of the Work Plan indicates that competent drums and overpacked drums will be placed within the temporary drum staging area. This implies that competent drums will be moved, staged and ultimately disposed as they were found. However, the third paragraph of Section 4.4.2 (page 10) states that drums and/or other containers deemed competent will be

placed in an over-pack. Revise the appropriate section of the Work Plan for consistency.

11. Section 4.4.1.1 Temporary Drum and Soil Staging Areas (page 9). If competent drums are to be managed and transported in as found condition, provision should be made to conduct initial removal of soil that may be stuck to the outside of the drum.
12. Section 4.4.2.2 Vertical Extent of Excavation (page 11). The Work Plan states that excavation will not continue below the top of bedrock, if encountered. The Work Plan does not define whether the term top of bedrock means the top of weathered bedrock or top of competent bedrock. This distinction is important because there could be significant quantities of contamination bound to the matrix of the weathered bedrock beneath the drums. The Division is aware that the distinction between weathered and competent bedrock can be difficult to make in the field and in part depends upon the type of equipment used for excavation. The Division is also not intending for excavation to continue to significant depths in areas that may have a thick zone of weathered bedrock. Revise the Work Plan to state that the final determination regarding the vertical extent of excavation will be made in coordination with the EPA OSC (similar to the statement made in Section 4.4.2.1). In general, the excavation will not extend more than a specified number of feet into weathered bedrock and will not extend beyond the point of refusal of the excavation equipment being used.
13. Section 6 Project Organization (page 13) and Figure 4 and Section 2.1 and Figure 1 of the Quality Assurance Project Plan (QAPP). The description of key project personnel responsibilities must identify which project personnel have the direct authority to immediately stop project work (either in a specific work area or the entire Site) to address health and safety, quality control, or regulatory issues. If there limitations to a project person's ability to stop work they must be identified in the Work Plan and QAPP.

#### Comments Regarding the Field Sampling Plan

14. Section 2.4.2.2 (page 10) of the Field Sampling Plan describes procedures for the collection of confirmation soil samples. Revise the Field Sampling Plan to state that the confirmation soil samples for VOC analysis will discrete samples taken from a single point on the wall and floor as per Item 2.6 of SOP No.200.

Also revise this section of the Field Sampling Plan to specify how many aliquots will be included in the non-VOC composite soil samples from the side walls and floor.

15. Section 4.2 (page 21) of Field Sampling Plan (7<sup>th</sup> bullet). Revise the Field Sampling Plan to clarify that decontaminated sampling equipment does not have to be wrapped in aluminum foil if the sampling equipment is to be reused the same day as per Section 2.3, Step 12 of SOP No. 600.